Pakistan Urdu School- Kingdom of Bahrain

Curriculum Implementation Plan for ICT Grade XII

No.	Month/Week	Starting Date	Topics from Textbook or Others (Specify Unit Titles and Numbers)	National Curriculum References (Competency, Standards, Themes)	Total Periods
1	• May + June • 3 Weeks	20/05/18	**UNIT 1 OPERATING SYSTEM** 1.Introduction to Operating System • Operating system • Commonly-used operating systems (DOS, Windows, Unix, Macintosh) • Types of operating system: • Features/characteristics of operating system • Operating System Functions • Main Functions of operating system: • Process Management • Process Definition • Description of the new, running, waiting/blocked, ready and terminated states of a process • Differentiate between: Thread and process, Multi-threading & multi-tasking and Multi-tasking and multi-programming **LAB OUTCOME**	**Standard** – 8 OPERATING SYSTEMS **Theme** - To describe different types of operating systems and their functions and understand process management **LAB OUTCOME** **Standard**– 6 DEVELOPING PROGRAMMING SKILLS **Theme**-To write code to solve problems using high level programming languages and	21

			UNIT 3 OBJECT ORIENTED PROGRAMMING USING C++ • Introduction • C++ Constants and Variables • Input/ Output Handling	understand the concept of Object Oriented Programming (OOP)	
2	• Aug- Oct • 3 Weeks	27/05/18	**UNIT 2 SYSTEM DEVELOPMENT LIFE CYCLE** 2.1. System Development Life Cycle • System • System Development Life Cycle (SDLC) • Stakeholders and their role • Planning • Feasibility • Analysis • Requirement Engineering • Design (Algorithm, Flow Chart, Pseudo code) Coding • Testing /verification • Deployment/Implementation • Maintenance/Support • Role of Management in SDLC • Role of Project Manager in SDLC • Role of System Analyst in SDLC • Role of Programmer in SDLC • Role of Software Tester in SDLC • Role of Customer in SDLC	**Standard– 9** SYSTEM DEVELOPMENT **Theme** -To describe SDLC, its importance and objectives covering various terminologies, Management terms, process models and risk analysis and management.	21

			LAB OUTCOME **UNIT 3 OBJECT ORIENTED PROGRAMMING USING C++** • Input/ Output Handling • Operators in C++	**LAB OUTCOME** **Standard**– 6 DEVELOPING PROGRAMMING SKILLS **Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming (OOP)	
	• October • 3 Weeks	07/10/2018	**UNIT 3 OBJECT ORIENTED PROGRAMMING USING C++** 3.1. Introduction • Program • Header files and reserved words • Structure of a C++ program • Use of a statement terminator (;) • Purpose of comments and their syntax 3.2. C++ Constants and Variables • Constant and variable • Rules for specifying variable names • Data types offered by C++ • Constant qualifier – const • process of declaring and initializing variables • type casting 3.3. Input/ Output Handling • the use of cout statement for displaying output on the screen	**Standard**– 6 DEVELOPING PROGRAMMING SKILLS **Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming (OOP)	21

			• the use of cin statement to get input from the keyboard during execution of the program • getch( ), gets( ) and puts( ) functions • escape sequence • use of the escape sequences using programming examples • Most commonly used I/O handling functions • Use manipulators endl and setw 3.4. Operators in C++ • Assignment, Arithmetic, Arithmetic assignment, Increment and decrement, Relational, Logical and Ternary operators and show their use with examples • unary, binary and ternary operators • an expression • the order of precedence of operators. • compound expression		
	• November • 2 Weeks	04/11/2018	**UNIT 4 CONTROL STRUCTURES** 4.1. Decisions • Decision statements • Nested if	**Standard**– 6 DEVELOPING PROGRAMMING SKILLS	14

			• Break statement and exit function **4.2.** Loops • Looping structures: • Continue statement • Nested loop	**Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming (OOP)	
	• November • 2 Weeks	18/11/2018	**UNIT 5 ARRAYS AND STRINGS** 5.1. Introduction • Array • Array Size • Array Index • Initialize an array • Access and write at an index in an array • Traverse an array using all loop structures • Use the size of ( ) function to find the size of an array 5.2. Two dimensional Arrays • Two dimensional array • Initialize a two dimensional array of different sizes and data types • Access and write at an index in a two dimensional array **5.3.** Strings • string	**Standard**– 6 DEVELOPING PROGRAMMING SKILLS **Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming (OOP)	14

			• Techniques of initializing a string • String functions		
	• January • 2 Weeks	02/01/2019	**UNIT 6 FUNCTIONS** 1. Functions • Function • Advantages of using function • Signature of function • Function prototype • Function definition • Function call • Local, global, and static variables • Formal and actual • Local and global functions • Inline functions 2. Passing arguments and returning values • Passing arguments • Default arguments • Return statement **3.** Function overloading • Function overloading • Its Advantages and disadvantages • Use of Function overloading	**Standard**– 6 DEVELOPING PROGRAMMING SKILLS **Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming(OOP)	14
	• January • 2 Weeks	20/01/2019	UNIT 7 POINTERS • Pointers • Memory addresses	**Standard**– 6 DEVELOPING PROGRAMMING SKILLS	14

			• Reference operator (&) • Dereference operator (*) • Pointer types • Initialize the pointers	**Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming(OOP)	
	• February • 2 Weeks	03/02/2019	**UNIT 8 OBJECTS AND CLASSES** 8.1. Classes • class and object • Member of a class • Access specifierD • Data hiding • Constructor and destructor • Constructor overloading • Object declaration • Inheritance • Polymorphism	**Standard**– 6 DEVELOPING PROGRAMMING SKILLS **Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming(OOP)	14
	• February • 2 weeks	03/03/2018	**UNIT 9 FILE HANDLING** • File Handling • Binary and text file • Open the file • Modes of opening file • Concept of - BOF, EOF • Stream - Single character, String	**Standard**– 6 DEVELOPING PROGRAMMING SKILLS **Theme**-To write code to solve problems using high level programming languages and understand the concept of Object Oriented Programming(OOP)	14

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